

3127 120<sup>th</sup> Ave., Clear Lake, MN 55319 (320) 743-5110

March 3, 2014

Marlene H. Dortch, Secretary Federal Communications Commission 445 – 12<sup>th</sup> St. SW Washington, DC 20554

RE: Expression of Interest

CAF Experiment Program Docket No. 10-90

Dear Ms. Dortch,

Palmer Wireless, LLC would like to submit for your consideration an Expression of Interest in the Rural CAF Experiment Program. Palmer Wireless is a licensed CMRS operator with access to FCC licensed spectrum in our current service area. Currently we are not an ETC, however, if funding is provided we would meet the requirements required by the FCC to become an ETC.

#### **Background**

Palmer Wireless is a Cellular Mobile Network Operator based in Clear Lake, Minnesota which began offering broadband services in 2006. Palmer Wireless currently serves rural areas of Benton and Sherburne Counties with fixed and mobile voice and broadband services using 3G and 4G technology. The majority of the existing customers are using our service via fixed wireless broadband where dial up and low speed DSL are present. There are large areas of our service area that the incumbent telephone company has older copper plant that is not able to provide broadband services greater than 1.5 Mbps. We believe the main reason for the existing telephone companies not providing better broadband services is that our service area is on the edge of three different national telephone companies and the lack of population along with these edges along with the cost to deploy facilities from each of these three companies makes it difficult to individually justify the improvements. Palmer Wireless is well positioned to serve the outlying edges of these exchanges with a high quality network and superior customer service.

The Palmer Wireless network provides a wide range of offerings to our customers that a facility based provider would not be able to provide, as well as solutions that a wireless only provider could not offer. One of our most recent projects was to partner with the Becker Public School District 726. The innovative partnership was able to provide the district's 20 school buses with internet service at no cost to the school through an arrangement that was mutually beneficial. The district's 2,700 students now have access to the internet while on bus routes that can be up to 1.5 hours long. In addition, student's participating in extracurricular activities has access to the internet for school related activities while on bus trips away from the district. As the way students are taught changes, the students need to have the tools needed to learn, wherever they are. Access to the internet is a basic necessity in today's world and is especially critical for our children and Palmer Wireless is dedicated to serving this need. Palmer Wireless has also started to deploy facility- based services to business' that require higher bandwidth than we can currently provide over our wireless network. Our customers have told us that the reason they want to do business with our company versus their other options is the fact we are the only locally based company in our communities we serve and we deliver the highest level of customer service available. Palmer Wireless' involvement in our communities is unparalleled from our competition. As consolidation has occurred in our industry, the rural areas have suffered due to the high cost to support these areas. Palmer Wireless has brought the local partner back to our rural communities and we believe the proposed broadband experiment should not only look at technology options, but also the evaluation of how the service provider partners with the communities now and in the future.

#### **Project**

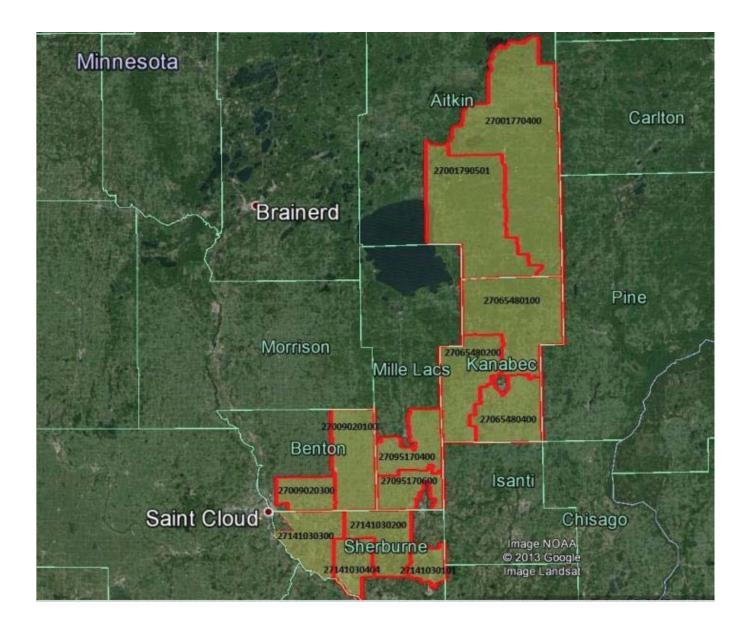
Palmer Wireless is proposing to expand our service offering to a larger geographic area than we serve today, as well as improving the service offering that is currently in place. The 3G and 4G solutions that are in place today are on macro tower locations that serve an average of 30 square miles per tower location. Each of these towers has approximately 30 Mbps of capacity to the geographic area they serve. We are proposing a hybrid network to distribute the capacity to smaller geographic areas to provide for higher per customer broadband speeds. We are proposing a fiber based facility offering from our data center to the geographic areas we intend to serve. The fiber will provide a mechanism to deploy additional Macro sites and revolutionary small cells using LTE over licensed spectrum. Up to six separate tower locations can be served from one eNodeB. In addition to LTE, advanced wireless technology using licensed or unlicensed spectrum will also be possible with the baseline network of the backbone fiber and tower locations. The fiber will connect the digital base band unit referred to as an eNodeB to the remote radio units that broadcast the signal. The small cells will utilize shorter towers such as light poles or utility poles or even silos. The small cell locations will be strategically deployed near customers, as well as combining the opportunity to utilize shared light poles at intersections of rural highways to provide highway lighting at dangerous intersections. The backbone fiber route will also enable the ability to serve customers with fiber to the home solution where the fiber route is in close proximity to the user or the customer is requesting a broadband package that is above 6 Mbps.

# **Proposed Service Areas**

Palmer Wireless is proposing to create a network for a five county area in Minnesota which includes Aitkin, Benton, Kanabec, Mille Lacs and Sherburne Counties.

TractID	County	County Name	State	Population	Homes	Area in Square Miles	Eligible High Cost Locations	Extremely High Cost Locations
27001770400	27001	Aitkin	MN	3,052	3,450	460.117	467	78
27001790501	27001	Aitkin	MN	1,957	2,305	294.256	310	65
27009020100	27009	Benton	MN	5,807	2,268	140.22	436	14
27009020300	27009	Benton	MN	2,184	873	45.729	248	6
27065480100	27065	Kanabec	MN	3,578	2,018	240.005	1,888	142
27065480200	27065	Kanabec	MN	3,834	1,904	149.48	1,190	53
27065480400	27065	Kanabec	MN	5,030	2,132	124.655	1,484	68
27095170400	27095	Mille Lacs	MN	5,221	1,982	99.748	177	13
27095170600	27095	Mille Lacs	MN	2,826	1,080	70.629	688	34
27141030101	27141	Sherburne	MN	11,300	3,956	40.529	32	2
27141030200	27141	Sherburne	MN	7,224	2,519	102.591	106	2
27141030300	27141	Sherburne	MN	5,929	2,586	97.591	79	7
27141030404	27141	Sherburne	MN	8,983	3,065	62.154	7	0
Totals				66,925	30,138	1927.7	7,112	484

The combined potential underserved homes served in this proposal are approximately 7,500 and covers approximately 2,000 square miles.



## **Service Pricing**

The service pricing we propose is on par to offerings in urban areas as we feel that rural citizens should not be penalized for where they live.

4 Mbps down/1 Mbps up \$45.00 per month Wireless and Fiber to the Home

6 Mbps down/2 Mbps up \$49.00 per month Wireless and Fiber to the Home

100 Mbps down/10 Mbps up \$64.00 per month Fiber to the Home

#### **Schools, Libraries and Community Centers**

This project's service area includes the Becker Community Center and Library, Becker City Government Center, Benton County Government Center, Foley Library, and Kanabec County Government Center. Palmer Wireless will also partner with the Becker Public Schools, Foley Public Schools, Mora Public Schools, McGregor Public Schools and Ogilvie Public Schools in the proposed service area to equip the districts buses with wireless internet similar to our partnership with Becker Public Schools.

## **Project Timeline**

Palmer Wireless has an existing 3G and 4G platform in place today and the expanded coverage will be provided through small cell, macro cell and fiber deployment. The trunk fiber route and the wireless base station solutions are shovel ready and can be completed within 12 months of receiving the funding. The fiber to the home solutions will occur after the wireless umbrella coverage is in place and would be dictated by customer demand for speeds beyond 6 Mbps. The cost of deploying the last mile solution from the core fiber route to the home is built into the Palmer Wireless business plan and is not being requested in this project.

## **Total Project Cost**

The project is estimated to have capital cost needs of 19 Million. Palmer Wireless is requesting funding for 9.5 million of the project.

Respectfully,

Laura Kangas Palmer Wireless, LLC

3127 120<sup>th</sup> Avenue Clear Lake, MN 55319

320-743-5110

Ikangas@palmerwireless.com

Juna Kogas